

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior listings of claims in this application.

1. (Currently Amended) A method for manufacturing a heat sink comprising:

heating a metal base to melt solder in grooves formed in said base, said base having a first coefficient of thermal expansion, said solder having a second coefficient of thermal expansion lower than said first coefficient of thermal expansion;

positioning fins in said grooves, said fins having said first coefficient of thermal expansion;

cooling said metal base and said solder, said metal base experiencing tensile stresses and said solder experiencing compressive stresses to form a concavity in a thermal face of said base;

planing said thermal face to form a planar thermal face;

wherein said tensile stresses and said compressive stresses ~~reduce~~ relax over time such that said planar thermal face ~~is~~ becomes convex.

2. (Original) The method of claim 1 wherein:

said first coefficient of thermal expansion is about 17 ppm/C and said second coefficient of thermal expansion is about 15 ppm/C.

3. (Original) The method of claim 1 wherein:

said base and said fins are made from the same material.

4. (Original) The method of claim 3 wherein:

said base and said fins are copper.

5. (Original) The method of claim 1 wherein:

said base is copper and said solder is 90In-10Ag solder.

6. (Original) The method of claim 1 wherein:

said base is copper and said solder is Sn-Bi solder.

7. (Original) The method of claim 1 further comprising:

installing fasteners around a periphery of said base for securing said base to a surface.

8. – 13. (Canceled) .